IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 1, 8, 15 and 16 and ADD new claim 24 in accordance with the following:

1. (currently amended) A data conversion method for displaying an image, comprising conversion of original frame data indicating gradation of a pixel into display frame data defining a light emission timing of a display element in a display frame period, the conversion, comprising:

determining a light emission waveform for plural frames in accordance with ~~display frame data of plural frames containing~~ display frame data of a current frame and display frame data of a previous frame;

performing Fourier expansion of an error between the determined light emission waveform and a target light emission waveform defined by the original frame data corresponding to the determined light emission waveform; ~~and~~

assigning weights to Fourier components of the error to add up the Fourier components of the error;

determining a light emission waveform, performing Fourier expansion of an error and assigning weights to Fourier components to add up the Fourier components more than once producing calculated sum values while changing a value of the display frame data of the current frame in each time;

comparing the calculated sum values; and

setting ~~the~~ display frame data of the current frame as data practically used for displaying the current frame, the display frame data corresponding to a minimum sum value. ~~so that a sum of error components, with respective weights that are obtained by weighting each Fourier component, is minimized.~~

2. (previously presented) The data conversion method according to claim 1, wherein the weight of each Fourier component is set individually for each light emission color of a display element.

3. (previously presented) The data conversion method according to claim 1, wherein the weight of each Fourier component, of a frequency above a flicker frequency, is set to "0".

4. (previously presented) The data conversion method according to claim 1, wherein a period of each display frame is different from a period of each original frame, comprising;

a current frame and a previous frame and a target gradation waveform defined by original frame data corresponding to the gradation waveform; and

setting the display frame data of the current frame so that a sum of error components, with respective weights that are obtained by weighting each Fourier component, is minimized.

5. (previously presented) The data conversion method according to claim 4, wherein the Fourier expansion is performed for each time range having a unit of the display frame period.

6. (previously presented) The data conversion method according to claim 4, wherein the Fourier expansion is performed for each time range having a unit of the original frame period.

7. (previously presented) The data conversion method according to claim 1, wherein the target light emission waveform is an interpolation waveform obtained by linear approximation of a transition of discrete target light emission values in each original frame.

8. (currently amended) A data conversion method for displaying an image, comprising conversion of original frame data indicating gradation of a pixel into display frame data defining a light emission timing of a display element in a display frame period, the conversion ~~including the steps of~~, comprising:

determining a gradation waveform for plural frames in accordance with display frame data of a current frame and display frame data of a previous frame, the gradation waveform indicating a transition of gradation;

performing Fourier expansion of an error between the determined ~~a~~ gradation waveform ~~indicating a transition of gradation to be displayed~~ and a target gradation waveform defined by the original frame data corresponding to the determined gradation waveform ~~, an error with weight obtained by setting weight to each Fourier component being small~~;

~~performing Fourier expansion of an error between a gradation waveform indicating a gradation transition defined by display frame data of plural frames containing the current frame and the previous frame and a target gradation waveform defined by original frame data corresponding to the gradation waveform; and~~

assigning weights to Fourier components of the error to add up the Fourier components of the error;

determining a gradation waveform, performing Fourier expansion of an error and assigning weights to Fourier components to add up the Fourier components more than once producing calculated sum values while changing a value of the display frame data of the current frame in each time;

comparing the calculated sum values; and

setting ~~the~~ display frame data of the current frame as data practically used for displaying the current frame, the display frame data corresponding to a minimum sum value. ~~so that a sum of error components with weight that are obtained by weighting each Fourier component.~~

9. (previously presented) The data conversion method according to claim 8, wherein the weight of each Fourier component is set individually for each light emission color of a display element.

10. (previously presented) The data conversion method according to claim 8, wherein the weight of each Fourier component, of a frequency above a flicker frequency, is set to "0".

11. (previously presented) The data conversion method according to claim 8, wherein the display frame period is different from the original frame period.

12. (previously presented) The data conversion method according to claim 11, wherein the Fourier expansion is performed for each time range having a unit of the display frame period.

13. (previously presented) The data conversion method according to claim 11, wherein the Fourier expansion is performed for each time range having a unit of the original frame period.

14. (previously presented) The data conversion method according to claim 8, wherein the target gradation waveform is an interpolation waveform obtained by linear approximation of a transition of discrete target gradation values in each original frame.

15. (currently amended) A display device expressing gradation of original frame data by controlling a light emission timing of a display element in accordance with display frame data, the device comprising:

an original frame memory memorizing original frame data of at least one frame;

a display frame memory memorizing display frame data of at least one frame;

a data converting circuit outputting data corresponding to an input data value as display frame data of an n-th frame, responding to an input of original frame data of the n-th frame, original frame data of at least an (n-1)th frame from the original frame memory and display frame data of at least an (n-1)th frame from the display frame memory, wherein the display frame data outputted by the data converting are prepared by:

determining a light emission waveform for plural frames in accordance with display frame data of ~~plural frames containing~~ a current frame and a display frame data of a previous frame;

performing Fourier expansion of an error between the determined light emission waveform and a target light emission waveform defined by the original frame data corresponding to the determined light emission waveform;

assigning weights to Fourier components of the error to add up the Fourier components of the error;

determining a light emission waveform, performing Fourier expansion of an error and assigning weights to Fourier components to add up the Fourier components more than once producing calculated sum values while changing a value of the display frame data of the current frame in each time;

comparing the calculated sum values; and

setting the display frame data of the current frame ~~so that a sum of error components, with respective weights that are obtained by weighting each Fourier component, is minimized~~ as data practically used for displaying the current frame, the display frame data corresponding to a minimum sum value.

16. (currently amended) A display device expressing gradation of original frame data by controlling a light emission timing of a display element in accordance with display frame data, the device comprising:

an original frame memory memorizing original frame data of at least one frame;

a display frame memory memorizing display frame data of at least one frame;

a data converting circuit outputting data corresponding to an input data value as display frame data of the n-th frame, responding to an input of original frame data of the n-th frame, original frame data of at least an (n-1)th frame from the original frame memory and display frame data of at least an (n-1)th frame from the display frame memory, wherein the display frame data outputted by the data converting circuit are prepared by:

determining a gradation waveform for plural frames in accordance with display frame data of a current frame and display frame data of a previous frame, the gradation waveform indicating a transition of gradation;

~~performing a Fourier expansion of an error between a gradation waveform indicating a gradation transition defined by display frame data of plural frames containing a current frame and a previous frame and a target gradation waveform defined by original frame data corresponding to the gradation waveform; and~~

~~setting the display frame data of the current frame so that a sum of error components, with respective weights that are obtained by weighting each Fourier component, is minimized~~ performing Fourier expansion of an error between the determined a gradation waveform and a target gradation waveform defined by the original frame data corresponding to the determined gradation waveform;

assigning weights to Fourier components of the error to add up the Fourier components of the error;

determining gradation waveform, performing Fourier expansion of an error and assigning weights to Fourier components to add up the Fourier components more than once producing calculated sum values while changing a value of the display frame data of the current frame in each time;

comparing the calculated sum values; and

setting. display frame data of the current frame as data practically used for displaying the current frame, the display frame data corresponding to a minimum sum value.

17. (canceled)

18. (previously presented) The method as recited in claim 1, further comprising weighting the difference components responsive to human eye frequency sensitivity.

19. (previously presented) The method as recited in claim 8, further comprising weighting the difference components responsive to human eye frequency sensitivity.

20. (previously presented) A PDP display control method, comprising converting original frame data indicating gradation of a pixel into display frame data defining light emission timing of a display element in a display frame period, comprising:

determining a light emission timing length waveform having at least three curve points from display frame data containing a current frame (n), an immediately prior frame (n-1) and a frame immediately prior to the immediate prior frame (n-2);

determining a difference between the light emission timing length waveform and a target light emission timing length waveform having at least three curve points;

performing Fourier expansion of the difference producing difference components; and

setting display frame timing length data of the current frame so that a sum of the difference components is minimized.

21. (previously presented) The method as recited in claim 20, further comprising weighting the difference components responsive to human eye frequency sensitivity.

22. (previously presented) A data conversion method for displaying an image, comprising:

converting original frame data indicating pixel gradation into display frame data defining a light emission timing of a display element in a display frame period, comprising:

determining a first light emission luminance waveform having at least three points in original display frame data containing a current frame and a previous frame;

performing Fourier expansion of an error between the first light emission luminance waveform and a second light emission luminance waveform having at least three points corresponding to the first light emission luminance waveform; and

setting the display frame luminance data of the current frame where a sum of error components, with respective weights obtained by weighting each Fourier component, is minimized.

23. (previously presented) A data conversion method for displaying an image, comprising:

converting original frame data indicating pixel gradation into display frame data defining a light emission timing of a display element in a display frame period, comprising:

determining a first light emission total display period length waveform having at least three points in original display frame data containing a current frame and a previous frame;

performing Fourier expansion of an error between the first light emission total display period length waveform and a second light emission total display period length waveform having at least three points corresponding to the first light emission total display period length waveform; and

setting the display frame total display period length data of the current frame where a sum of error components, with respective weights obtained by weighting each Fourier component, is minimized.

24. (new) A display control method, comprising:

creating a table that determines a new light emission pattern from inputs for a light emission pattern of a past frame and a display graduation level;

obtaining a light emission pattern of a past frame and a display graduation level;

accessing the table with the light emission pattern of the past frame and the display graduation level; and

outputting the new light emission pattern.